

Title (en)  
PROCESSING CO2 UTILIZING A RECIRCULATING SOLUTION

Title (de)  
CO2-VERARBEITUNG MITHILFE EINER RÜCKFÜHRUNGSLÖSUNG

Title (fr)  
TRAITEMENT DE CO2 EN UTILISANT UNE SOLUTION DE RECYCLAGE

Publication  
**EP 2229341 A4 20110615 (EN)**

Application  
**EP 09812407 A 20091211**

Priority

- US 2009067764 W 20091211
- US 12187208 P 20081211
- US 17008609 P 20090416
- US 17847509 P 20090514
- US 23942909 P 20090902
- US 25464009 P 20091023

Abstract (en)  
[origin: US2010150802A1] In some embodiments, the invention provides, a method comprising a) contacting a solution with an industrial source of carbon dioxide to produce a CO2-charged solution; b) subjecting the CO2-charged solution to conditions sufficient to produce a composition, wherein the composition comprises carbonates, bicarbonates, or carbonates and bicarbonates; c) separating a supernatant from the composition; and d) recirculating at least a portion of the supernatant for contact with the industrial source of carbon dioxide. In some embodiments, the invention provides a system comprising a) a processor configured to produce a composition from an industrial source of carbon dioxide, wherein the composition comprises precipitation material comprising carbonates, bicarbonates, or carbonates and bicarbonates and a treatment system configured to separate a supernatant from the composition, wherein the processor and the treatment system are operably connected for recirculation of at least a portion of the supernatant.

IPC 8 full level  
**C01B 32/50** (2017.01); **C01B 32/60** (2017.01)

CPC (source: EP US)  
**B01D 53/62** (2013.01 - EP US); **B01D 53/96** (2013.01 - EP US); **C01B 32/60** (2017.07 - EP US); **B01D 2251/606** (2013.01 - EP US); **B01D 2257/504** (2013.01 - EP US); **Y02C 20/40** (2020.08 - EP US); **Y02P 20/151** (2015.11 - EP US)

Citation (search report)

- [X] WO 2007106372 A2 20070920 - COMRIE DOUGLAS C [US]
- [X] US 5792440 A 19980811 - HUEGE FRED R [US]
- See references of WO 2010068924A1

Cited by  
US10556848B2

Designated contracting state (EPC)  
AT BE BG CH CY CZ DE DK EE ES FI FR GB GR HR HU IE IS IT LI LT LU LV MC MK MT NL NO PL PT RO SE SI SK SM TR

DOCDB simple family (publication)  
**US 2010150802 A1 20100617**; AR 077723 A1 20110921; AU 2009287464 A1 20100701; AU 2009287464 B2 20100923; AU 2010257401 A1 20110120; CA 2694971 A1 20100611; CA 2694971 C 20120320; CN 101896425 A 20101124; EP 2229341 A1 20100922; EP 2229341 A4 20110615; WO 2010068924 A1 20100617

DOCDB simple family (application)  
**US 63658009 A 20091211**; AR P090104841 A 20091214; AU 2009287464 A 20091211; AU 2010257401 A 20101223; CA 2694971 A 20091211; CN 200980101411 A 20091211; EP 09812407 A 20091211; US 2009067764 W 20091211